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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,248	04/09/2001	Patrick M. McCartney	89.0469	7390

7590 07/30/2002

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EXAMINER

TYLER, CHERYL JACKSON

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,248

Applicant(s)

MCCARTNEY, PATRICK M.

Examiner

Cheryl J. Tyler

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant application, the applicant uses the legal phraseology "comprises" in line 2 of the claim. This objection may be obviated by reciting --includes-- rather than "comprises."

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites a "desired location" in line 5 of the claim. It is not clear as to what constitutes the recited "desired location."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 7-8, 18-21, 24-25, 27, and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Carter (3,975,117). Carter teaches a large casing 11 (corresponding to the claimed outer housing); a shaft 33 disposed within the casing; anti-friction ball bearing assembly 34, 47 (corresponding to a plurality of wear surfaces) that support the shaft; an inducer impeller pump 37 (corresponding to the lubricant pump) disposed within the casing at axial end thereof; central bore 64 (corresponding to the claimed conduit); a stator 31 disposed within the casing; and a rotor 32 rotatably mounted within the stator and mounted on the shaft. Carter teaches that “the inducer impeller 37 suspended on the bottom of the motor shaft 33 is rotated so that its vanes 39 will induce an upward flow of the fluid through the annular passage 24 between the motor housing 17 and the surrounding casing 14. The vanes 18 in this passage 24 will diffuse rotation of the fluid created by the rotating vanes 39 to axial flow. The axially flowing fluid passes through the inwardly converging passages 25 provided in the cap 16 to inlet 26 of the first pump stage where the fluid enters the eye of the shrouded impeller 53 ... Some of the fluid from the pumping chambers 27 will flow between the adjacent impellers and the overlying walls 83 of the cup members 82 into the chambers 86 which communicate with the bores 64 in the motor shaft 33 through the passages 6

and 87. This fluid is discharge from the motor shaft bore 64 through the passages 65 in to the bottom of the motor housing 17 and can flood this motor housing to eventually leak through the bottom bearing 34 and the bearing bushing 45 back to the inducer to merge with the incoming fluid impelled by the inducer and thus, be recirculated back through the passage 24. Likewise, the bled-off fluid in the top of the motor housing 17 can flow through the bearing 47 and bushing 62 back to the first stage pump inlet 26 to merge with the fluid from the passages 25. In this manner, the motor compartment is cooled and the bearings are lubricated" (column 5, line 44 - column 6, line 17).

6. Claims 1-3, 7-13, 17-21, and 24-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Parmeter et al. (5,828,149). Parmeter et al. teach a casing 11 (corresponding to the claimed outer housing); a shaft 31 disposed within the casing; radial support bearings 35 (corresponding to the claimed plurality of wear surfaces that support the shaft; an inducer pump 57 with helical flights 61 (corresponding to the claimed lubricant pump having an impeller) disposed within the casing at an axial end thereof; a shaft bore 53 and lateral passages 55 (corresponding to the claimed conduit); a centrifugal pump 17 (corresponding to the claimed submersible pump); a seal section 15 (corresponding to the claimed motor protector); motor 13 (corresponding to the claimed submersible motor). Parmeter et al. teach that "the motor 13 and the seal section 15 will be filled with a lubricating oil" (column 3, lines 52-53). Parmeter et al. further teach that "As shaft 31 rotates, inducer 57 will rotate with it. This causes lubricant in chamber 51 to pass through filter 64, up outlet 65, and into shaft bore 53. Inducer 57 pumps the lubricant up shaft bore 53 and out lateral passages 55. The

upper end of shaft bore 53 may be open in which case some of the lubricant will discharge into seal section 15 ..." (column 3, lines 59- 65). As illustrated in Figure 1, the submersible motor is combined with the seal section 15 and the centrifugal pump 17.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-6, 14-16, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parmeter et al. (5,828,149) in view of Wilson (4,367,140). Parmeter et al. meet all of the limitations of the claims, except that they employ an impeller pump rather than a gear pump or a vane pump in order to pump the lubricant. Wilson teaches the art-recognized equivalence of using a rotary pump such as an impeller pump or a gear pump or a vane pump (see column 3, lines 8-10 and column 4, lines 60-61). Because these are art-recognized equivalents at the time of the invention in those pumping applications where it is immaterial what kind of rotary pump is used, one of ordinary skill in the art would have found it obvious to substitute the gear and/or vane pump for the impeller pump taught by Parmeter et al.

With regards to the specific elements of the gear pump and vane pump, the Examiner takes Official Notice that these elements are well known in the rotary pump art as elements necessary to operate the cited pump.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Bookout (4,487,299) teaches that seal sections are well known motor protectors.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl J. Tyler whose telephone number is 703-306-2772. The examiner can normally be reached on Monday-Thursday, 6:00 - 10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 703-308-0102. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.


Cheryl J. Tyler
Primary Examiner
Art Unit 3746

CJT
July 26, 2002